

Work Order ID 148079

Friday, June 24, 2016 8:49:26 AM

148079

Page 1

Item ID: DSI 9410-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Amends Installation of D350-591-311/-312 Steps

Start Date: 6/24/2016 Start Qty: 5.00 ***5***

Cust Item ID:

Required Date: 7/4/2016 Req'd Qty: 5.00 ***5***

Customer:

Reference:

JUN 24 2016Approvals: Process Plan: MS Date: _____ Tooling: _____ Date: _____Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI 9410	B								
100	Document Control	0.00							
100									
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile &type labels per PPP DSI 9410-011 CHG002								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.03							
Quality Control									

JUN 29 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : ☐							

Work Order ID 148079

148079

Page 2

Friday, June 24, 2016 8:49:26 AM

Item ID: DSI 9410-011 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Amends Installation of D350-591-311/-312 Steps
 Start Date: 6/24/2016 Start Qty: 5.00 ***5*** Cust Item ID:
 Required Date: 7/4/2016 Req'd Qty: 5.00 ***5*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP DSI 9410-011 Location: FG123 _____ PPP rev: _____								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.08							
Quality Control									

SX

DAS
27
9-89

DAS
28
9-89

PPR 146599

JUN 29 2016

16/6/29

dem 16/06/29

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Friday, June 24, 2016 8:49:30 AM

Page 1

Work Order ID: 148079

148079

Parent Item: DSI 9410-011

DSI 9410-011

Parent Item Name: Amends Installation of D350-591-311/-312 Steps

Start Date: 6/24/2016

Required Date: 7/4/2016

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP RevA: New issue DD verified by:EC
DD 10.03.03 verified by:EC
IPP rev:B as per dwg RevB

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4-15A		Purchased	No			110	Each	282.0000	8	40			
AN4-15A									**			DAS 6 9-89	
Bolt												DAS 28 9-89	
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				26					
				120449				26					
				over003				150					
				m134955				150					
				ST343				106					
				m134762				106		40		DAS 6 9-89	
D2732-030		Manufactured	No			110	Each	347.0000	4	20			
D2732-030									**			DAS 28 9-89	
Rubber Cushion - 3"													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST410				347					
				117118				86		20			
				144999				5					
				146999				56					
				147721				200					
cut (4) at 3.00" per kit													
D3595		Manufactured	No			110	sf	486.8380	0.0833	0.4165			
D3595									**			DAS 6 9-89	
Rubber Cushion (\$ Per Ft)										3144898		DAS 28 9-89	
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				MAT052				486.838					
				94539				486.838					
(D3595-200-300) Cut(2) at 2.00" X 3.00" as per dwg													
D3595 (per kit)													

JUN 27 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		FAULT CATEGORY		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
		OTHER :									

Picklist Print

Friday, June 24, 2016 8:49:30 AM

Page 2

Work Order ID: 148079

148079

Parent Item: DSI 9410-011

DSI 9410-011

Parent Item Name: Amends Installation of D350-591-311/-312 Steps

Start Date: 6/24/2016

Required Date: 7/4/2016

Start Qty: 5.00

Required Qty: 5.00

MS21042L4

Purchased

No

110

Each

2,157.000

8

40

MS21042L4

Locknut

DAS

28

6 9-89

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

161

m133769

161

OVER007

500

m134955

500

ST303

1402

m127376

12

m134861

890

m135058

500

ST305

94

m130922

94

40

DAS

6

9-89

NAS1149D0463J

Purchased

No

110

Each

3,873.000

16

80

NAS1149D0463J

WASHER

DAS

28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

86

M132035

21

M134508

65

ST260a

3000

M134852

1000

M134943

1000

M135056

1000

ST263

787

M127693

24

M134754

763

80

JUN 27 2016

Friday, June 24, 2016 8:49:30 AM

Shop Packet Print

Page 2

DART SERVICE INSTRUCTION

TO AMEND DRAWING D350-591 REV. F

REF. CANADIAN STC: SH92-6

FAA STC: SH967NE

TO IMPROVE THE FIT OF THE D350-591-311/-312 STEPS, IT IS ACCEPTABLE TO INSTALL THE DSI 9410-011 KIT. INSTALL THE D2732-030 CUSHION (AFT CROSSTUBE) AND D3595-200-300 CUSHION (FWD CROSSTUBE) AS SHOWN IN FIGURE 1 IN PLACE OF THE D2856-400-720 ABRASION STRIP CALLED OUT ON DRAWING D350-591 REV. F.

FOR CUSTOMERS WHO HAVE PREVIOUSLY INSTALLED D2856-400-720 ABRASION STRIPS REMOVE THE ABRASION STRIPS IN ACCORDANCE WITH ICA-D350-591. PRIOR TO INSTALLING THE DSI 9410-011 KIT.

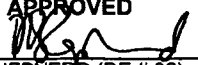
DSI 9410-011 KITS WILL BE INCLUDED WITH D350-591-311/-312 STEPS AT CHANGE 002 AND SUBSEQUENT.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
148079 NCS
1606-24

QTY -041	PART NUMBER	DESCRIPTION
X	DSI 9410-011	STEP MODIFICATION KIT
4	D2732-030	CUSHION
2	D3595-200-300	CUSHION
8	AN4-15A	BOLT
16	AN960JD416	WASHER
8	MS21042L4	NUT (OR MS21042-4)

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 08.09.08
CERT. NO.: SH92-6
ISSUE NO.: 10

B	SHEET 1 DELETE REVISED P/L. (SEPERATE DSI KIT FROM MAIN KIT SEE NCR 08-082 FOR DETAILS)	AJS	08.09.08
A	NEW ISSUE	PH	08.03.27
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	A	DRAWING NO.	REV. B
MFG. APPR.	N/A	DSI 9410	SHEET 1 OF 2
APPROVED	AP	TITLE	SCALE
DE APPR.	HA	STEP MODIFICATION KIT	NTS
DATE	08.09.08	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

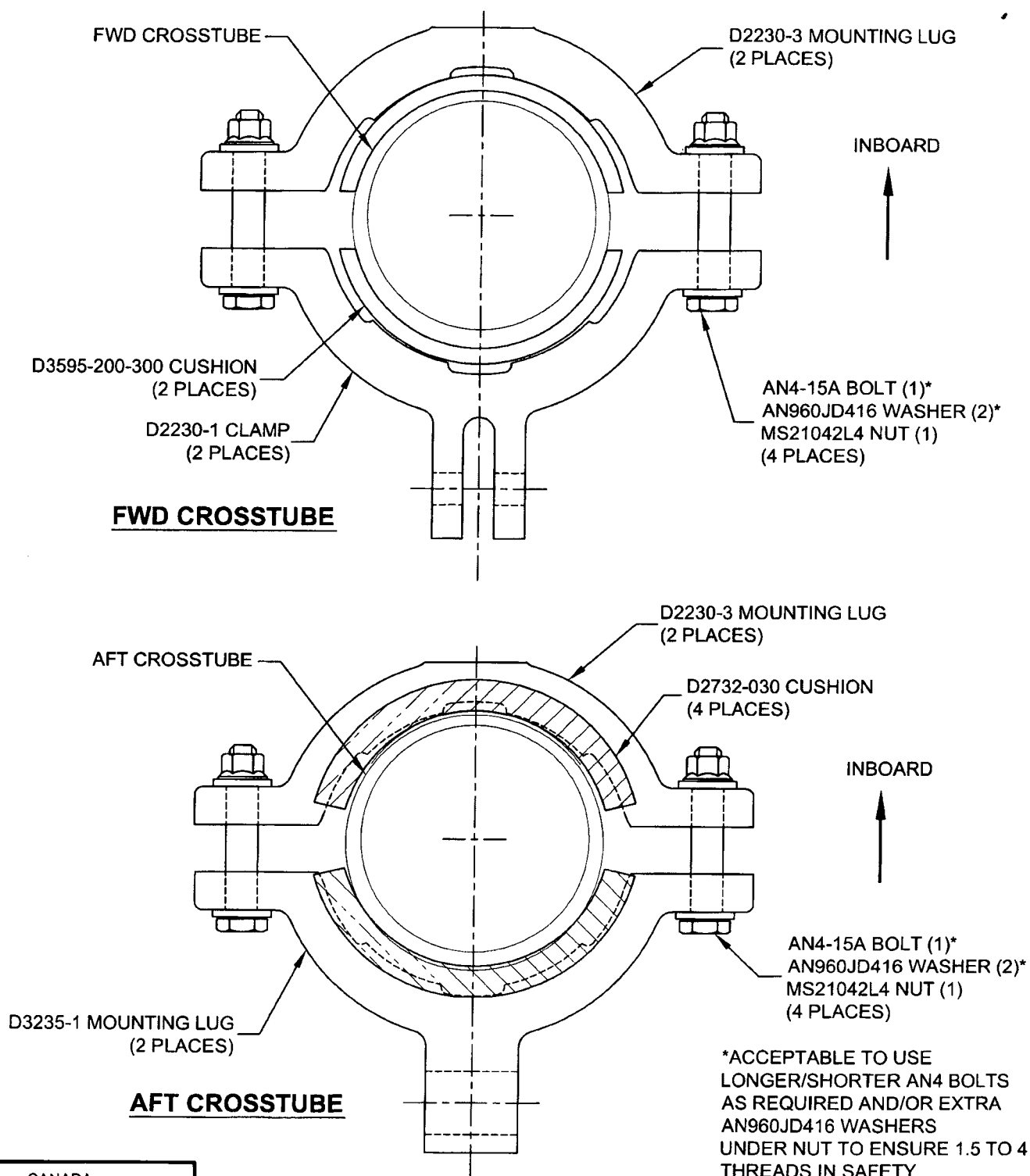


FIGURE 1 - CLAMP/CUSHION INSTALLATION

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 08.09.08
CERT. NO.: SH92-6
ISSUE NO.: 10

DESIGN	<i>AS</i>	DART AEROSPACE LTD	
DRAWN	<i>AS</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	N/A	DSI 9410	SHEET 2 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	STEP MODIFICATION KIT	NTS
DATE	08.09.08	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

148079

Friday, June 24, 2016 8:49:26 AM

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 6/24/2016 **Start Qty:** 5.00 ***5***

Required Date: 7/4/2016 **Req'd Qty:** 5.00 ***5***

Reference:

~~JUN 24 2016~~

Approvals: Process Plan: MCS Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

[illegible]

DART SERVICE INSTRUCTION

TO AMEND DRAWING D350-591 REV. F

REF. CANADIAN STC: SH92-6

FAA STC: SH967NE

TO IMPROVE THE FIT OF THE D350-591-311/-312 STEPS, IT IS ACCEPTABLE TO INSTALL THE DSI 9410-011 KIT. INSTALL THE D2732-030 CUSHION (AFT CROSSTUBE) AND D3595-200-300 CUSHION (FWD CROSSTUBE) AS SHOWN IN FIGURE 1 IN PLACE OF THE D2856-400-720 ABRASION STRIP CALLED OUT ON DRAWING D350-591 REV. F.

FOR CUSTOMERS WHO HAVE PREVIOUSLY INSTALLED D2856-400-720 ABRASION STRIPS REMOVE THE ABRASION STRIPS IN ACCORDANCE WITH ICA-D350-591. PRIOR TO INSTALLING THE DSI 9410-011 KIT.

DSI 9410-011 KITS WILL BE INCLUDED WITH D350-591-311/-312 STEPS AT CHANGE 002 AND SUBSEQUENT.

QTY -041	PART NUMBER	DESCRIPTION
X	DSI 9410-011	STEP MODIFICATION KIT
4	D2732-030	CUSHION
2	D3595-200-300	CUSHION
8	AN4-15A	BOLT
16	AN960JD416	WASHER
8	MS21042L4	NUT (OR MS21042-4)

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 08.09.08
CERT. NO.: SH92-6
ISSUE NO.: 10

B	SHEET 1 DELETE REVISED P/L. (SEPERATE DSI KIT FROM MAIN KIT SEE NCR 08-082 FOR DETAILS)	AJS	08.09.08
A	NEW ISSUE	PH	08.03.27
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	J	DRAWING NO.	REV. B
MFG. APPR.	N/A	DSI 9410	SHEET 1 OF 2
APPROVED	NO	TITLE	SCALE
DE APPR.	H	STEP MODIFICATION KIT	NTS
DATE	08.09.08	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	